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The INDUSTRIOUS HEN

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"Lays all over
the South"

THE Industrious Hen

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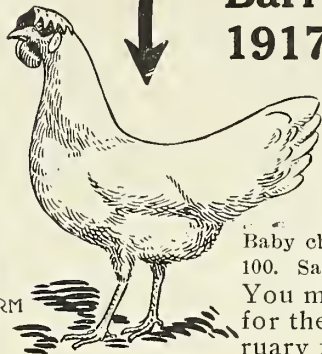
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Best strains Barred, Buff, Partridge and White Plymouth Rock stock, eggs and baby chicks. Prices reasonable. Registered Duroc pigs. Mrs. Allen M. Dorris, Hendersonville, Tenn. 12-12t

(Continued on page 200.)

THE INDUSTRIOUS HEN

VOL. XIII.

LOUISVILLE, KY., MAY, 1917

No. 12

A GOOD POULTRY HOUSE FOR 100 LAYING HENS

A Good Poultry House is Just as Important as Good Feeding Methods—Unless Your Birds Are Properly Housed You Cannot Expect Profitable Returns—The House Illustrated Here Can Be Built Cheaply and Will Give You Satisfactory Results.

EDITOR'S NOTE.—We are able to give our readers the benefit of this only through the courtesy of the College of Agriculture, Kentucky State University, Lexington, Ky. It is Circular No. 36, by D. D. Slade, of the Extension Division, on poultry house construction. This is an ideal plan for a poultry house and one that has been tried out and proven entirely satisfactory in every way at the Kentucky Experiment Station before being placed before the public. By following the drawing and specifications below you will find little trouble in constructing such a poultry house.

IF THE best performance is to be expected from laying hens during any season of the year, they must be given at all times the most congenial surroundings possible. This means that first of all they must be kept in a house which is suitably located, and which furnishes the desirable conditions at a minimum cost. The laying houses should be placed on sloping land, preferably on the southern slope with the house facing south or southeast. This will then receive the direct rays of the sun for the greater part of the day. Low spots should be avoided, as they are apt to be damp on account of improper air drainage. Such places are usually springy and wet, thus increasing the work of cleaning the yards and runs, besides increasing the danger of disease in the flock.

The buildings themselves should be situated with a view towards saving time and labor in caring for the birds. When the plant is complete it should possess a neat and attractive appearance. The exact location of the house must be determined by local conditions, which will naturally vary on different farms. For one thing, they should be placed where they will be protected from prevailing winds and storms and where the birds can have an abundance of range and natural shade.

The Essential Features in a Good House.

Economy in Construction.—It is not always necessary to employ only new lumber for poultry houses. Old farm buildings can be utilized to good advantage, especially when the frame and boards are in good condition. In many cases there are buildings about the farm which with a little extra expense for material can be remodeled into efficient houses by putting down a desirable floor, cutting openings for muslin curtains and constructing suitable sheltered roosting places.

A heavy sill and good frame are important for insuring permanence and rigidity. One of the most economical types of construction involves the boarding up of the roof and side walls with rough material, and covering this with some good grade of roofing paper on the roof, and battens on the sides.

Convenience in Caring for the Birds.—In planning the house provision should be made for as many labor-saving devices as possible, such as large self-feeding hoppers for the dry mash which require filling but once a week, drinking vessels which make the environment more congenial, thus acting as a tonic to the birds and can be quickly and thoroughly cleaned when necessary.

Direct sunlight should reach every part of the house as much of the day as possible. Sunlight is the best germ destroyer known, cleansing the parts of the house where

it shines. It also adds warmth and makes the environment more congenial, thus acting as a tonic to the birds during the short winter days and inducing a heavier production.

Freedom from moisture is essential. The two kinds of moisture which have to be avoided in poultry houses, where the layers are to be kept in a healthy condition, consist of condensation moisture and surface soil water. The first is caused by the condensing of atmospheric moisture on the ceiling and rafters. This is usually due to lack of sufficient head room and more often to insufficient ventilation and fresh air. This condition can be corrected by substituting muslin for the glass fronts and thus insuring plenty of circulation. The second is usually seepage water, working its way under the foundation and up through the dirt and dampening the litter. This should be guarded against by proper drainage under the foundation when the house is built, and by the construction of a suitable floor.

The house should be well ventilated without causing drafts to blow directly on the birds. An abundant supply of oxygen is essential if the birds are to perform the normal body functions. It is especially needed where a large number are continuously crowded together in close quarters during the entire winter, as is true of most laying houses. It can best be supplied by the use of a liberal amount of muslin in the front of the house. Such curtains allow at all times fresh air to pass in and the impure air to pass out, and this change takes place without drafts or rapid movement of the air. The muslin acts as a sieve or buffer.

The birds should be given plenty of room for exercise. Exercise is essential for the health of the individuals and to prevent them from taking on too much surplus fat, a condition which would be detrimental to heavy egg production. The exercise can best be provided by feeding all grain rations in deep litter on the floor.

The number of birds which can safely be kept in a house of given dimensions will depend somewhat upon the breed and largely on the experience of the poultryman caring for them. Under average conditions it is safest for the amateur not to crowd the birds too closely, keeping about one bird to every four and one-half or five square feet of floor space. The expert, however, who thoroughly understands the needs of sanitation, can successfully keep as many as one bird to every two and one-half square feet of floor space.

Protect the birds from cold without keeping them too warm. Birds will stand intense cold much better than a warm atmosphere. If the house is drafty as well as damp the birds become subject to colds which rapidly develop into forms of roup that quickly put them out of laying condition. The poultryman should so arrange the house that the temperature of the birds' bodies will be conserved when necessary during very cold weather. This can be done by the use of muslin drop curtains in front of the perches. At no time should the temperature in the house be allowed to become low enough to freeze the bird's combs.

The house should be made as nearly as possible rat and vermin-proof. Rats are often a source of great loss,

caused directly by their killing young pullets. The cost of a good concrete floor will often be saved in one year by making the house absolutely rat-proof. In this way a great saving is accomplished in the feed bill, for a family of full grown rats will eat about as much dry mash as a flock of twenty-five laying hens. The internal construction of the house should be as plain as possible, and should offer few hiding places for lice and mites. All internal fixtures should be made movable so that they may be taken out of the house occasionally and thoroughly cleaned.

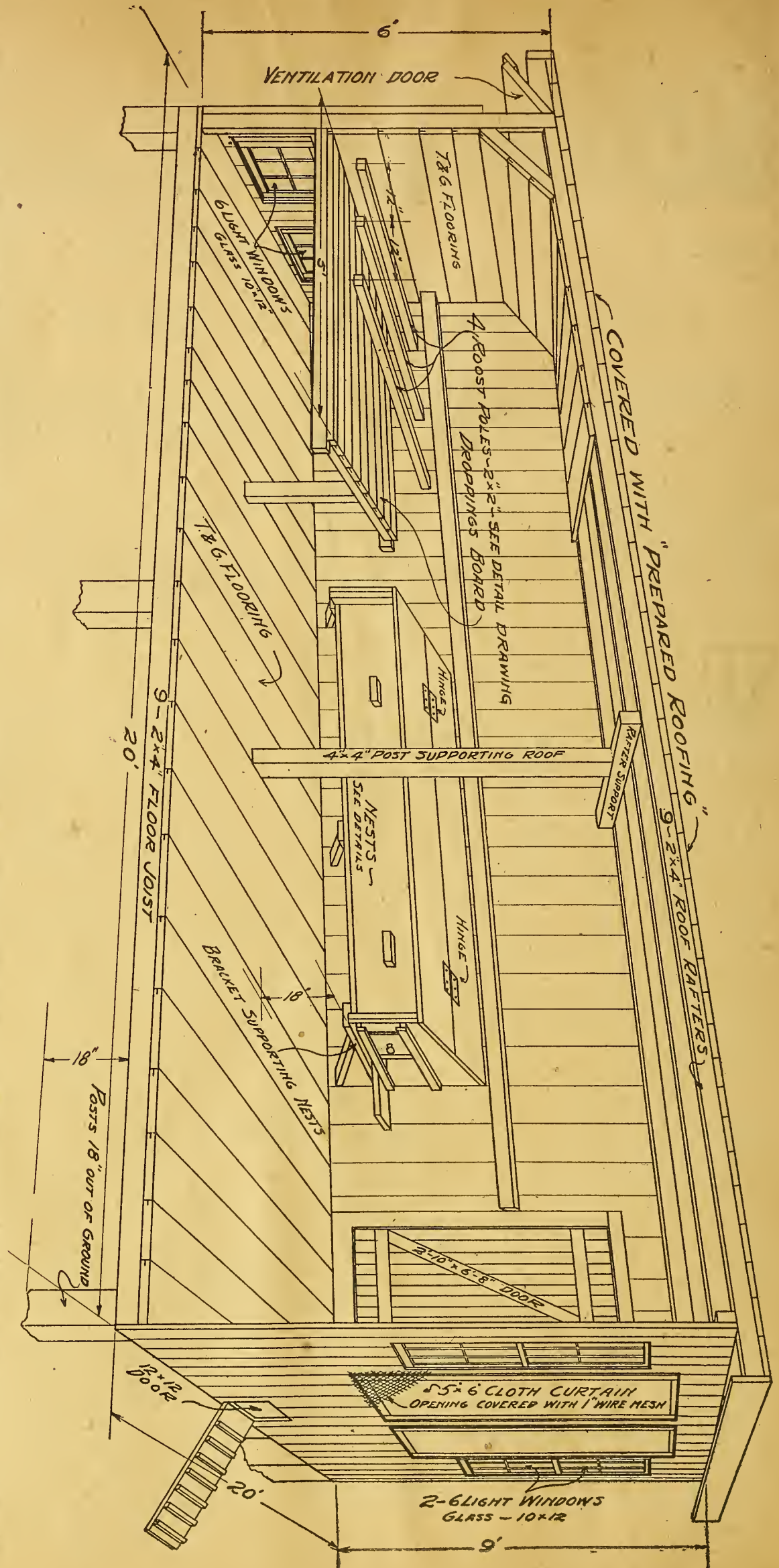
The principles outlined above can be most economically worked out to suit Kentucky conditions in a house conforming very closely with the following type. The house described is the style of house quite widely used and is one well adapted to general farm conditions. It is a permanent structure built upon a substantial post foundation.

The house as per accompanying drawing will accommodate a hundred grown fowls and will permit this size of flock to be cared for with the minimum of labor. The dimensions of the house as per the accompanying drawing, is twenty feet wide and twenty feet deep. This type of house, however, has been built in various sizes from ten by ten to the size in the accompanying drawing.

The house illustrated herewith is principally of rough building material, showing two muslin curtains filling the space between the two windows of the front, with the door in the side next to the front. The arrangement may be varied, but in any case there should always be care used to secure a sufficient amount of effective glass and curtain surface in the south or southeast front. These curtains are made of light muslin or cheese cloth tacked on to frames which are hinged at the top in such a manner as to permit them to be swung up and hooked against the roof.

Two other windows should be provided in the rear of the house under the dropping board. These windows have proven to be of value, and should be put in. By so doing the trouble of litter accumulating under the dropping board will be overcome, at the same time giving better ventilation during the months of extreme heat, by removing the glass and covering opening with one-inch wire mesh.

The walls and roofing lumber for the accompanying plans are of rough lumber. The cracks stripped over with half-inch by three-inch battens. The house can then be whitewashed inside and out.



List of Materials required for 100-Hen House.

Floor.	Roof and Droppings Board.
13 2x4-in., 20 ft., rough.	20 1x4-in., 12 ft., rough.
415 sq. ft. No. 2 flooring.	3 4x4-in., 10 ft., rough.
	550 sq. ft. 1-in. rough boards.
Sides, Front, Back.	95 lin. ft. 1x6-in., rough.
700 sq. ft. 1-in. rough boards,	6 squares roofing paper.
16 ft. long.	10 2x2-in., 10 ft., rough.
700 lin. ft. 1/2x3-in. battens,	4 2x4-in., 10 ft., rough.
rough.	320 sq. ft. No. 2 flooring, 6 in. wide.
6 2x4-in., 16 ft., rough.	Nests.
4 2x4-in., 20 ft., rough.	5 pieces 1x12-in., 12 ft., rough.
190 lin. ft. 1x4-in., 10 ft. lengths for window frames.	2 pieces 1x4-in., 12 ft., rough.
3 prs. 6-light 8x10-in. sash.	1 piece 2x4-in., 12 ft., rough.

SOME IMPORTANT PROBLEMS IN GROWING CHICKS.

Correct Methods Necessary to Avoid Loss and Insure Profit.—Black Rhinelanders Win Cup for March, but White Wyandottes in the Lead for Five Months in the American Egg Laying Contest.

By T. E. QUISENBERRY, Leavenworth, Kas.

NO DOUBT there has been millions of baby chicks hatched this season. The percentage of these which mature and develop into strong, vigorous and profit-making birds is a question which should concern every poultry raiser. We offer the following suggestions which we believe will be of interest and benefit to the poultry fraternity.

Avoid Crowding.

One of the chief causes of death in young chicks is the result of over-crowding. Chickens cannot sweat as they have no sweat glands in the skin, therefore the impurities and moisture must be crowded out through the breath. If the chickens are over crowded and there is not sufficient ventilation in their roosting quarters, the air becomes filled with impurities and laden with moisture, which places an unusual strain on the system of the bird in many ways, especially upon the kidneys, which results in a weakened system. If the chickens come from the coop in the morning, weak and tottering, and with no appetite, this accounts for much of the lack of vitality, which we find in many flocks.

Hopper Feeding is Best.

The use of hoppers for feeding both grain and dry mash after the chicks are six weeks old is a good practice. By this time they are usually on free range in coops or colony houses provided for that purpose. If you continue to feed the chicks by hand when you open the house each morning to let them out, they will wait and follow you and beg you to feed them. They will fill up on grain or feed which you give them. They then sit around and wait until the noon feed, and just so again at night. The result is that they are never satisfied or contented and do not hustle and get the exercise or develop as they should. But if you place the feed in hoppers when you turn them out of the coops and hovers each morning, they pay no more attention to you than if you were not there. They rush by you and on by the hoppers containing the feed and out into the clover or cornfield or orchard in search of worms, bugs, etc. They soon learn that the food is always there when they want it and they also learn that the "early bird catches the worm," and they go in search of them first. They then come back to the hoppers and fill up on grain and dry mash. But if you hand-feed, unless you are an expert, the chicks fill upon your feed and then sit in the shade of a tree until they see you coming in sight again. The chicks know much more about their wants than does the average inexperienced person who attempts to raise poultry. By actual test they do not eat any more where they are hopper-fed than where they are hand-fed.

Water is Cheap and Important.

Neglecting the drinking pan, especially during warm weather, and allowing the chicks to go without water, sour milk or buttermilk during the dry hot days of summer will cause greater injury to the young stock than the lack of sufficient food. Also the use of stale, dirty and stagnant water will often lead to a complication of chick diseases and digestive disorders. Water is very cheap in

price and it is pure neglect on the part of the poultryman to allow his chickens to suffer for water. A man who neglects to keep fresh water before his chickens at all times does not deserve to succeed. Moisture is an absolute necessary in the life of the young chick for the following reasons: (1) to soften the food in the crop; (2) to dilute concentrated food; (3) to regulate the temperature of the body; (4) to aid in the digestion and assimilation of the food; (5) to carry nourishment throughout the body; and (6) to carry waste out of the system.

Provide Shade for the Chicks.

Much of the loss of young chickens in summer months can often be traced to the lack of shade. If the young stock is not protected from the hot sun on a summer's day the chicks are certain to be dwarfed to a great extent and deaths are sure to result. The drinking vessels should be kept in the shade and the fowls given protection from both sun and rain. If you can't provide for a cornfield near the poultry yards, then sow some sunflower seed, set out some cherry trees, or place grape vines around the fences surrounding the poultry yard, or provide shade in some other way that will not detract from the appearance of your place. You had just as well grow a crop of grain or a crop of fruit on land on which you raise poultry as not. If you can't provide shade in any other manner, drive some stakes and cover them with a light frame, and on this tack some burlap, canvas, or something of this nature. This will give the birds a comfortable resting place on a hot summer's day.

Control Lice and Mites.

There is nothing that is more detrimental to the health and growth of young chicks than to let parasites gain a foothold in your flock. If you notice them becoming listless, their combs and wattles becoming pale in color and the young birds losing in weight, we advise making an examination of such birds and also of your houses and coops to see if you can discover evidences of either lice or mites. Chicken mites are one of the worst pests found in the poultry yard. The growth of the young chickens depends upon the digestion and assimilation of nourishing food. The blood carries this nourishment to the various portions of the body, and as long as mites live upon the body of the chick and remove the blood as fast as it is made, there is little chance of growth. There is great danger of mites, especially in the warmer sections of the country. All coops and perches should be regularly examined and brushed with a solution of three to five parts of kerosene mixed with one part of crude carbolic acid or with some of the reliable commercial products which you see advertised.

The Contest for March.

The hens made the best record this past month that they have made to date. The White Wyandottes are still holding the lead but Black Rhinelanders made quite a gain the past month and are now only eleven eggs from first place. The ten highest pens to date are as follows:

Pen.	Eggs.
74. White Wyandottes, Illinois	432
46. Black Rhinelanders, California	421
16. Single Comb White Leghorns, Kansas	391
114. Barred Plymouth Rocks, Missouri	390
75. White Wyandottes, Illinois	376
94. Buff Wyandottes, Missouri	368
9. Single Comb White Leghorns, Pennsylvania	366
77. White Wyandottes, Kansas	354
105. Single Comb Rhode Island Reds, Missouri	352
85. Barred Plymouth Rocks, Kansas	350

Inasmuch as over 90 per cent of the contestants did not state the bird they wanted held as a reserve, we have taken the liberty to include the five highest pullets in each pen in their month's report. The leading pens for March included more varieties than any previous month. Some pens which were late in starting are just now beginning to make a good record. We predict that they will lay well into the summer season. Then ten best March pen records of five pullets each are as follows:

Pen.	Eggs.
46. Black Rhinelanders, California	125
85. Barred Plymouth Rocks, Kansas	115
65. Single Comb Rhode Island Reds, Kansas	110
99. White Orpingtons, Kansas	107
117. Black Orpingtons, Ohio	104
47. Black Orpingtons, Indiana	102
9. Single Comb White Leghorns, Pennsylvania	102
6. Single Comb White Leghorns, Texas	100
63. Silver Wyandottes, South Dakota	100
13. Single Comb White Leghorns, Canada	100

The ten leading pullets in the pen contest are as follows:

Band.	Eggs.
1144. Barred Plymouth Rock, Missouri	114
461. Black Rhineland, California	112
743. White Wyandotte, Illinois	102
854. Barred Plymouth Rock, Kansas	100
1092. Rhode Island White, New York	99
871. White Plymouth Rock, Tennessee	98
1181. White Orpington, Missouri	96
754. White Wyandotte, Illinois	94
944. Buff Wyandotte, Missouri	94
745. White Wyandotte, Illinois	92
1145. Barred Plymouth Rock, Missouri	92

PRODUCE MORE POULTRY THIS YEAR.

The Necessity of Producing an Extra Pound of Poultry Products for Every Man, Woman and Child in the United States.

By E. E. RICHARDS, President American Poultry Ass'n.

BEFORE another hatching season, the great United States will no doubt be in the deepest throes of the world's most cruel war and no one can foretell the countless thousands that may be crying for bread. It is up to the United States, the world's greatest, richest and most resourceful nation, to not only look after the welfare of her own citizens, but to give aid and assistance in supplying food to countless thousands of suffering humanity in the torn and stricken war zone. The great agricultural resources of America must prepare to assume this burden. Every one of us must do our bit. Every acre, every nook and corner must bear its share. It is lucky that in poultry we can produce the cheapest and most quickly produced meat of all the various sources of our meat supply. Here, we have an opportunity of producing an extra one hundred million pounds if the American farmers, the fanciers and breeders will give their attention to hatching during the months of May and June.

It is a well known fact that the available supply of meat products is today the lowest in our country, per capita, in the history of the United States. In order to meet the extremely dangerous condition, we have within ourselves a wonderful opportunity of aiding what may prove to be a world-wide cry for food. Let us all join enthusiastically in the propaganda of helping in the probable time of need, by putting forth now every effort to meet, in a measure, the demand that is sure to come for untold quantities of foodstuffs. Never in the history of the world will there be a greater demand than in the next twenty-four months that are to follow.

For the past twenty-four months we have been killing the goose that has been laying the golden egg, and with the hue and cry of costly feed, poultry and all meat products have been soaring far above all the usual estimates as to the relative cost of production, and the selling price.

of profit on the production of eggs and poultry is far in excess of the percentage of profit in other lines. But aside from the question of profit, we must look at the situation from a philanthropic and humanitarian standpoint and each and everyone "do his bit" to meet an exigency that seems inevitable. Let us all be a factor in the production of an extra hundred million pounds of poultry meat which is less than one pound additional for each man, woman and child in the United States.

The United States Department of Agriculture has just issued a statement that upwards of seven hundred millions of dollars of the annual tribute paid by Americans to the game of war. Why not convert this into feed to produce poultry and eggs?

Every home can have a self-supporting and profitable flock in the back yard by converting the offal from the table and kitchen into the very choicest of poultry feed. What an astounding waste, an utter extravagance that costs nearly seven dollars for every man, woman and child in the United States? Let every home have a neat poultry house and a few well kept, profitable fowls. The editor of this publication will be only too pleased to cooperate with every reader desiring any information.

It is not unusual for the fanciers to quit hatching with April. Let me urge that hatching be continued during the months of May and June and also during July in a large part of our country. Let the old hen do her part—fill the incubators—keep them going through May and June—the results will be worth while. Let us be prepared to consume every bit of table and kitchen scraps and make them a source of profit.

MARCH REPORT OF SIXTH NATIONAL EGG LAYING CONTEST, MOUNTAIN GROVE, MO.

Fertility of Eggs.—Swat the Rooster May 19.—S. C. White Leghorns Win Cup for March.—White Wyandottes Lead in Total and Individual for Five Months.—20.8 Eggs per Hens Average for All Hens.

T. PATTERSON, Director.

After placing a male bird in a pen where no other males have been the eggs become fertile in two or three days, and after removing the male from the pen the eggs remain fertile for about twenty days. The male and female are equally responsible for the fertility of eggs. Past records of this contest show 36,468 eggs incubated of which 7,240 were fertile. This is practically 20 per cent, leaving 80 per cent of the eggs infertile, so if we were asked what was an average fertility, we would say 80 per cent, or twelve out of each setting of fifteen. Hatching is another question. A further study reveals the fact that the per cent of fer-



Lake Forest S. C. Rhode Island Reds on range. W. H. Farrar, Chattanooga, Tenn., producer of this strain of Reds, has produced some birds. Look up his advertisement in this issue.

tility varies with different seasons. The per cents for the first six months of the year are as follows:

January	62%	March	82%	May	83%
February	75%	April	85%	June	75%

The length of time the eggs are kept is an important factor which should be considered. Under ordinary conditions there seems to be little or no fertility lost during the first ten days. The following table indicates the number of eggs in fifteen which might be expected to be fertile where they are kept different lengths of time under ordinary conditions:

Age.	Jan.	Feb.	Mar.	Apr.	May.	June.
10 days.....	9	11	12	13	12	11
15 days.....	6	8	8	9	9	8
20 days.....	3	4	5	6	5	4
25 days.....	1	2	3	3	3	2
30 days.....	0	0	0	0	0	0

The fertility as shown by the individuals where 100 eggs were tested for each male and twenty eggs for each female is as follows:

1 produced	0% fertility
9 produced	less than 50% fertility
6 produced	from 50% to 60% fertility
8 produced	from 60% to 70% fertility
13 produced	from 70% to 80% fertility
25 produced	from 80% to 90% fertility
35 produced	from 90% to 99% fertility
3 produced	100% fertility

Fertility is desirable in eggs for hatching, but undesirable in eggs for food. If a fertile egg is incubated for twelve hours the germ begins to develop, then if the egg is cooled and kept cool for three or more days, the germ dies and cannot be hatched and the dead germ is the center or beginning of decomposition. Thus it will be seen that fertile eggs after the incubation season is over have all to lose and nothing to gain. "Swat the rooster" on May 19 and market infertile eggs during the summer, which will insure greater profits to both producer and dealer and gives the consumer better eggs.

Valuable males should be penned with a few females, but infertile eggs should be produced from the flock. Eggs during the summer should be kept in a cool place and marketed often.

The Contest.

The 290 hens in the contest laid 6,040 eggs during March, which is an average of 20.8 eggs per hen.

Pen 53, S. C. White Leghorns, Missouri, won the cup for the month by laying 130 eggs.

Four Plymouth Rock pens are in the five highest places for March, the Barred, White and Buff Plymouth Rocks tying for third place. The pens occupying the five highest places for March are as follows:

Pen.	Eggs.
53. Single Comb White Leghorns, Missouri	130
59. Single Comb White Leghorns, Pennsylvania	128
5. Buff Rocks, Kansas	121
8. White Rocks, Idaho	121
11. Barred Rocks, Missouri	121
1. Missouri White Fluffs, Missouri	120
6. Partridge Rocks, Ohio	118

The ten highest places to date are occupied by many breeds and varieties. They are as follows:

Pen.	Eggs.
35. White Wyandottes, Missouri	509
19. Rose Comb Rhode Island Whites, New Jersey	493
52. Single Comb White Leghorns, Missouri	443
31. White Wyandottes, New York	440
27. Buff Orpingtons, Missouri	433
37. White Wyandottes, Missouri	432
23. White Orpingtons, Missouri	427
22. Rose Comb Rhode Island Reds, Missouri	423
28. Single Comb Rhode Island Reds, Iowa	419
20. Rose Comb Rhode Island Reds, Missouri	413

STANDARDIZATION OF POULTRY IN KENTUCKY

Ninety Thousand Purebred Eggs of Different Varieties Have Been Distributed Through Eighteen Counties in Kentucky.—Work Being Conducted by Extension Service of College of Agriculture, University of Kentucky, and County Agricultural Agents.

By ARTHUR S. CHAPIN, Poultry Extension Specialist,
University of Kentucky.

DURING the past three months a splendid interest has been taken by the farmers and their families in the production of more purebred poultry, and also in bringing about better marketing conditions. The finding of better marketing facilities has stimulated the breeding of better fowls of both the eggs and meat breeds. The possession of more standard stock and the higher prices of

poultry products have stimulated better housing, feeding and general management of poultry of Kentucky farms.

The present war will demand an increased production of staple food products and the modest hen, when she produces \$750,000,000 (enough to build two Panama Canals every year) plays a most important part in our nation's food supply.

There are two important phases of poultry extension work going on in Kentucky at the present time. One is the marketing of eggs by organizations, called "egg circles," largely composed of women. The other phase is the production of purebred poultry, through a "county standardization" plan, explained below.

Eighteen counties through the co-operation of their poultry improvement associations and farmers' clubs, with the county agent and extension service of the College of Agriculture, University of Kentucky, have distributed to reliable farm people, ninety thousand eggs from high-grade utility and standard-bred stock. Local banks have made this distribution possible by furnishing money without interest, to purchase these eggs. The following contract is used to safeguard the banks:

BREED AND VARIETY

Bank

Town, Ky.,191..

\$1.00

We, the undersigned, hereby subscribe for the number of settings of eggs opposite our names and we agree to pay to the one dollar per setting, to be paid in cash or in market poultry of the value covered by this contract, on or before November 1, this year. Said market poultry to be delivered to said bank or its representative in, Ky.

No. Settings

Name

Postoffice

Banks in these counties have offered sums from \$100 up to \$1,000 each for this work. The usual amount is \$150 which will buy 200 settings of eggs (fifteen in a setting) at \$5 per hundred eggs and put out to farmers at a dollar per setting cash, or a contract is signed, the parties agreeing to bring back eggs, cull or mongrel market chickens during the summer or fall, sufficient to satisfy the contract. The twenty-five cents difference in price of each setting pays express, printing of contracts and other small costs of handling. Any surplus of funds will be used as prize money for the best poultry exhibits of the county standard variety at the fall fair.

Those parties taking eggs are urged to take several settings so that they can establish a flock of sufficient size to supply eggs for hatching on the same basis next year. No breeder or farmer who is interested in another breed or variety is asked to change or give up his favorite. The best results of a county standardization plan will be getting people who have poor stock to exchange their mongrel chickens for a pure breed without any outlay of money.

Christian and Pulaski counties standardized last year and the farmers are now getting \$5 per hundred for all the eggs they can produce. Christian county adopted White Wyandottes and five neighboring counties have taken up the same breed and variety. The Pulaski county section has selected Barred Rocks and has a slogan, "Bar the County." The Berea section and eastern Kentucky have adopted Rhode Island Reds and have a poultry war-cry, "Paint the County Red." McCracken county is enthusiastic on White Plymouth Rocks.

This great increase in production and interest in better poultry through a standardization of a county breed began in a very small way two years ago. We hope next year to operate in twice as many counties and distribute three times as many eggs as this season. The plan is sound and safe. County agents who are doing the work are enthusiastic and have difficulty in securing enough eggs for their people.

"Don't try to figure why a black hen lays a white egg. Get the egg."

Eggs are being bought for cold storage earlier than ever before and the price is likely to stay good. Watch for placards to be sent throughout Kentucky, giving information as to the value of producing infertile eggs after the breeding season.



"Let Each of Us Do Our Bit."

FOR fear that there may be a cry for bread in this blessed United States, let each of us do our bit. Every citizen with a flock of poultry in the back yard, every farmer with his flock of turkeys, ducks, geese or chickens, should continue his hatching during the months of May and June.

We must produce more poultry meat than ever before to help supply the great shortage of food that seems inevitable. With poultry we have a means of supplying the most desirable, the cheapest and quickest meat product of any other source of meat supply.

The wonderful agricultural resources of the United States in these war times is going to be taxed to the uttermost, for in addition to supplying our home demands, we shall be called upon to aid in supplying food to millions of suffering humanity in the world's torn and stricken war zone. Let us each do our bit.—E. E. Richards, President of the American Poultry Association.

Every reader of the Industrious Hen can do his or her part in helping to produce more foodstuff during the coming year. Will you do it? Do not stop hatching now, but continue during the months of May and June and let the great South and Southwest show the world what they can produce in the way of foodstuff in this present crisis. The farmers of the South in the past have devoted most of their time to raising cotton, but now is the time for everyone of you to show your patriotic spirit and raise more grain and foodstuff. Help the United States feed the millions of suffering humanity in Europe. Will you do your part?

The Death of Secretary Campbell.

THE death of Secretary Campbell removes from among us one of the most active promoters of the Standard-bred poultry cause in all America. As secretary of the American Poultry Association he was one of its most loyal officers. He was always courteous and absolutely the soul of honor.

Samuel Theodore Campbell was born at Richmond, Va., June 7, 1856. As a young man, he located at Mansfield, Ohio, where he made his home for some years, moving later to Louisville, Ky., and other points, but returned to Mansfield, and for the past fifteen years he enjoyed the pleasure of his suburban home, surrounded with ample grounds. Here he delighted in its fruits, flowers and a few choice Standard-bred fowls.

During all his lifetime he was interested in Standard-bred fowls and had been honored by having been appointed to the chair of poultry at the agricultural college at the Ohio State University. He became a member of the American Poultry Association at Washington, D. C., in 1896. He was elected secretary in 1909, and was re-elected at each succeeding year

until up to date, and was one of his death, April 1, 1917, the only candidate for the secretary.

Mr. Campbell was a well-known member of the Blue Lodge, and Commandery of the Masons, also a member of the Knights of Pythias, the I. O. O. F. and the Fleas, as well as the Order of the Fleas. Mr. Campbell had had the honor of presiding and going to the chairs in all of the above orders, the Fleas excepted.

Mr. Campbell was stricken with what was determined by his physician as la grippe, but he was able to conduct the affairs of the association until March 15, at which date his physician prevailed upon him to take to his bed. Even in this condition he wanted to aid in dictating the interests of the association, but Mrs. Campbell forbade and he died. He made a wonderful rally, in such an extent that his physician dismissed his case, and on Sunday, April 1, 1917, he was stricken with a cerebral hemorrhage which resulted in his death.

Secretary Campbell was a legion and each was in happy remembrance his cordial and hearty handshake. He is survived by his wife and also two sons, Alexander and Robert, also by one sister, Mrs. Kate Reynolds.

How to Make Your Poultry Advertising Pay

THIS is one branch of the business in which the poultry breeder is interested and if he can make his poultry advertising pay him and bring the desired results in order to sell his surplus stock and eggs, he has solved a problem that will mean success to him in the future. It is not the fault of the poultry or farm presses of this country that the poultry breeder does not get the best of results from his advertising, but it is nine times out of ten the advertiser's fault, because he does not know how to advertise in order to get the desired results.

To make a success of advertising, a breeder should advertise every month in the year. By doing this he builds up a reputation and becomes known to every reader of the paper in which he is advertising. This is the result of constantly keeping your name before the public. Can't you readily see the advantage this breeder has over the fellow who advertises only one or two months in the year and then drops out? We have advertisers who have been in our columns for years and they have never missed a single issue. They are successful breeders and are making their adver-

tising pay. Why? Because they know how to carry on a successful advertising campaign. As the season advances and during the summer months carry only small space, just large enough to keep your name and breed before the public. Then in the fall, winter and spring months use larger space. This is the plan by which you can make your advertising bring results.

This rule not only works out with poultry breeders, but in any other line as well. How did the Coca Cola company build up such a sale on their product? Did they advertise for one month and then stop, expecting this to sell their entire output? It was constant advertising that brought them success. Even today, after they have advertised for years to build up this business, they continue to advertise more and more. This accounts for their great success.

If you have \$25.00 to spend in advertising, do not spend it all in one month, but scatter it out and use smaller space every month in the year. By doing this you are sure to build up a reputation and gain the confidence of the readers of this paper, which will result in a lot of good sales of stock and eggs. The new advertiser whose copy runs only one month has a slim chance to induce buyers to purchase his stock, when "John Jones," an old established advertiser, has gained the readers' confidence by keeping his advertisement before them every month in the year. This is the way to view the matter from a successful standpoint, and we hope our readers and advertisers will take this for what it is worth to them and if they are on the wrong road, we hope they will right themselves and get on the road to success.

The Hatching Season.

WE ARE now right in the midst of the hatching season, which is the busiest season in the year for the poultryman. This season will continue well into the summer months, for this year everyone is eager to hatch and raise all the chicks they possibly can, as the coming year promises to be the greatest ever experienced and especially in the South. From all indications and the reports we have received, many breeders have been unable to supply the demands for breeding birds. We received a letter several days ago from one of our advertisers saying he had sold out his limited supply of breeding birds, but was getting ready for a big trade next year, by hatching out all the birds he could possibly raise this season. We know there are hundreds of other breeders in the South today who are trying to do the same.



Under this heading we will give our readers clippings from our exchanges that we think will interest them.

Mrs. Campbell Appointed Secretary.

PRESIDENT Richards announces that he has appointed Mrs. S. T. Campbell as secretary of the American Poultry Association for the unexpired term, subject to the concurrence of the executive board. Mrs. Campbell has been in very close touch with the association affairs, and as assistant to Mr. Campbell she had a complete knowledge of the management in detail and is well fitted to assume the responsibilities.

Start Small and Grow.

The man who has made a success of the mail order business is the one who has commenced from the beginning and gradually won his way to the top, step by step, through patient and untiring efforts. There is no other way of making a success of the business. There are a large number of people who can't be convinced of this fact, who have excellent ideas and business ability. They wade right into the industry imagining they are masters of the situation, spend their money recklessly and awake sooner or later to their rashness—and failure. Be contented with a small beginning and grow slowly until you know where you are. Otherwise you might just as well consider yourself an early candidate for membership in the "Down and Out Club."—Ex.

Missouri State to Springfield.

We understand that the Missouri State Show has been located in Springfield. The dates are to be December 24-29. The judges are Adam Thompson, of Amity, Mo.; V. O. Hobbs, of Leavenworth, Kan., and Walter Bunton, of Arlington, Texas. The Springfield people are making great preparations for this show and the commercial club and business men are back of it, as well as the poultry association. The breed cards and the name of the exhibition will be placed on the coops just as they were at St. Joseph.—Ex.

Start in Poultry Business Now!

There are many who want to begin keeping poultry. Now is a good time to start with a few sitting hens and purchase your favorite stock under the first of June you will have an excellent start. Or, buy a batch of chicks. Or, purchase a fine lot of two of thoroughbred stock. The latter method will probably be the best. Baby chicks are always in danger with a new hand in the poultry business. Mature stock can be handled easily and the purchaser will have more time to study the art of raising small chicks. But the beginner will have to serve his apprenticeship at some cost. He might as well resign himself to that fact. Be humble. Be ready to learn. Don't be surprised if you make mistakes, even if you fail with your first flock. Keep right on. Again, say, this is an excellent time to start.

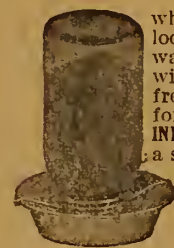
To Indicate Vitality of Hatched Chicks.

To select the most vigorous chicks before they are hatched is an ingenious method patented by Frank L. Plumb of Grove, Mo. That this is a real problem among poultry raisers has long been recognized. Vigorous chicks are more susceptible to disease than the vigorous chicks are not. It is a contract if the disease is

encouraged by the presence of weak chickens in the flock. Then, too, weak chicks will do better if separated from those more vigorous. It is also important that this culling be made as early as possible because some chicks will very soon apparently outgrow a weakness which they possess. If it can be done before hatching and done accurately, the value of Mr. Plumb's discovery can hardly be estimated.

Briefly speaking, the theory is this: As the chick approaches complete development in the shell it becomes more and more responsive to the laws of gravity. It will continue to right itself in the shell when the egg is turned. Therefore, if the egg after the eighteenth day is placed in a basin of lukewarm water the chick is placed in an upright position within the egg. In attempting to right its position its movements cause the egg to move up and down with a series of quick jerks. Chicks of strong vitality cause the egg to rise and sink nearly one-fourth the diameter of the egg, while those of weak vitality scarcely move the egg. This is a simple test and can be done with no injury to the eggs. The Missouri College of Agriculture has not had time to test this method and consequently cannot vouch for its reliability.—Ex.

FREE



Here is the feeder and fountain for which every poultryman has been looking. Just the fountain you want for your little chicks. We will give this feeder or fountain free to every one who sends us 50c for a year's subscription to **THE INDUSTRIOUS HEN**. If you are already a subscriber we will extend your subscription another year or get your neighbor to subscribe and we will send you the fountain free. Address Subscription Department.

THE INDUSTRIOUS HEN,

609 Republic Bldg.,

Louisville, Kentucky

DOOLITTLE'S ORPINGTONS—WHITE BUFF BLACK

Eggs for hatching from exceptionally fine matings at prices that will please you. We guarantee satisfaction on all orders. Get your copy of our free mating list before placing your order for eggs.

W. L. DOOLITTLE,

Stevens St.

FAIRMONT, WEST VIRGINIA



MAPLESIDE "Bred-to-Lay" Barred Plymouth Rocks

ACKNOWLEDGE NO SUPERIORS AS LAYERS

80% of all Hens on Hand Jan. 1, 1917, Averaged 201 Eggs Each

Eggs for hatching \$2.00 per 15, \$3.50 per 30, \$5.00 per 50, \$9.00 per 100. Pedigreed eggs \$10.00 per 15.

O. F. MITTENDORFF,

Box M,

Lincoln, Ill.

"REGAL" MATINGS FOR 1917

For the season of 1917 my 24 Exhibition Matings are the finest I have ever offered. They are headed by winning males at the New York State Fair, Boston and Hagerstown, and contain a host of winning females. The Regal strain has reproduced its quality and established more successful breeders than any strain in existence.

If you are not getting good results in fertility or egg production, if your birds are weak in constitution and not as vigorous as you would like, why not start all over again with the pure Regal strain?

EXHIBITION MATINGS

Pens 1 to 20 (as they run) \$5 per 15; \$9 per 30; \$12 per 45; \$24 per 100. Pens 5 to 12 are special matings. Eggs selected from special pens only are \$10 per 15; \$18 per 30; \$25 per 45; \$50 per 100.

RECORD LAYING PENS (Dorcas Line)

Pens 21 to 30 are headed by males bred from females with high records. Some of these males also have exhibition records. The females in these ten pens are composed of yearlings with trap-nest records from 180 to 246 and pullets of the same breeding. From these pens eggs are \$5 per 15; \$15 per 50; \$27 per 100; \$50 per 200. Utility matings of vigorous surplus stock, \$5.50 per 50; \$10 per 100; \$45 per 500; \$85 per 1000.

1000—COCKS, HENS, COCKERELS AND PULLETS FOR SALE—1000. Special Value Pens—Male and four females \$25, \$35 and \$50. Fine Exhibition or Dorcas Cockerels \$10, \$15, \$20 and \$25. Pullets \$4, \$5, \$8, \$10. Stay White Utility Cockerels \$3 and \$5 each.

FREE—Send for 1917 Catalogue and Mating List. It gives full description of all my matings.

Send One Dime for the Regal White Wyandotte Book. The information it contains will be worth dollars to you.

JOHN S. MARTIN,

BOX 911

PORT DOVER, CANADA

Just say you saw it in THE INDUSTRIOUS HEN.



SOUTHEASTERN NOTES and COMMENTS

By D. R. McBRAYER, Mooresboro, N. C.

MAY is here again and as usual there is work for all to do. The growing chicks need constant attention now and must have it. Feed them plenty of good sound grain and let them out in the open through the day when the weather permits. Plenty of fresh air is another very important factor as the weather begins to warm up. Open the coops and colony houses sufficiently to allow plenty of fresh air. Clean the coops and houses often to prevent disease and to keep down lice and mites. Spray the houses and coops with some good disinfectant such as Zenoleum, this preparation we have used and consider among the best. Lice probably kill more chicks annually than all diseases combined. Chicks not only cost money but are going to bring very high prices and once they are hatched we should do our best to raise them. You will never succeed in the poultry business unless you are able to raise your chicks. Give them attention now.

Keep the incubators going right on through May and June this year as the chicken crop is going to be one of the shortest in many years. High prices of grain among other things is going to cause a great falling off in the poultry crop and the demand is going to be even greater than ever before. We must supply our own soldiers and a large number to our allies who lie wounded in French and British hospitals too. Eggs are invaluable to the weak as well as fine food for the strong and we must not fail to supply our country with them. Get every pullet that you possibly can this month and next, raise the ones you already have and thereby do your country a great good.

Not only should the farmer pay more attention to his vegetable garden than ever before, but there are many small town and suburban dwellers who can be of great service to their country and to themselves too, by raising a large crop of edibles for their own table and for the market. Put every vacant spot of ground under cultivation now. America is the most wasteful nation in all the world. We have had plenty and "to spare" until we have become wasteful beyond conception. This war in which we are now engaged is going to teach us a lesson in economics that will do us good. We are going, it is true, have to live on much less than we have previously had, yet we can have plenty of good wholesome food if we only try and the man that does not go about preparing for that which is sure to come need not grumble if he fails to take heed. The whole world, that is, the most of it that amounts to very much, is now engaged in the bloodiest war that has ever swept down upon a people and the outcome no one can venture to predict. We

can only wait for developments. We feel that the great God of the universe is going to care for us during these dark hours and that He will do the things that are best for us and that when it all is over He will be loved and followed as never before. May He guide us in this, the darkest hour in our history.

The farmers of the South are faced with a great task for the coming year. Their part in feeding the world is not a little one and we urge that everyone get busy and try for the biggest crop in their history. It will not only pay handsomely but it will serve a great cause and fill a great need. The amount of grain is going to fall far short of the amount needed and consequently the price is going to be high. Too many farmers in the great Southeast pay most of their attention to cotton and let grain and meats alone. Consequently they are having to pay very high prices for these necessities when they should have them at home and not have to buy them. Grow all the corn, wheat, potatoes, etc., that you possibly can during the next twelve months and you will be richly repaid for your trouble.

The egg trade thus far this season has been very satisfactory as compared with the past few years. It is a healthy sign for the poultry business and we predict that all those who are improving their flocks as

well as the ones who are beginning the business are going to find a good profit even in market eggs and fowls. Guard against underfeeding though, as many are inclined to cut the feed as the price of grain soars. This is wrong, for hens will not and cannot lay eggs unless supplied with the proper food and that in the right amounts. It will be far more profitable to feed plenty and get the eggs, and growth in young birds, than to cut the feed and fail to get the eggs, and in the young birds have only poor, undersize specimens.

The Sun is going to warm things up this month and next and we should provide shelter from its hot rays not



DROPSY TREATMENT

IT gives quick relief. Distressing symptoms rapidly disappear. Swelling and short breath soon gone. Never heard of anything its equal for dropsy. A trial treatment sent by mail absolutely FREE. Try it.

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They Cannot Be Beat

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S. C. WHITE LEGHORNS

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MILKOLINE
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Stops dreadful disease which kills half chicks you hatch. Prevents awful bowel trouble which takes so much of Poultry Profits. The Bowels of little chicks are just as sensitive as those of the human infant. Modified sweet milk is the best known preventative for infants—and modified buttermilk—MILKOLINE—is the only absolutely safe preventative for chicks.

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PURE CONDENSED BUTTERMILK FEED + HEALTH

ABSOLUTE-CHICKS GROW FASTER
LY MAKES CHICKS GROW FASTER

You can feed it alone—but recommend that you mix little in all your chick feed. 20 to 25% of MILKOLINE will positively double feed in value—measured by increased vigor and health, or added growth. MILKOLINE will prove happiest feeding experience you ever had—one trial and you'll never be without again. Just as fine for growing and fattening broilers and old fowls. All the large Poultry Packers and Feeding Stations feed MILKOLINE extensively.

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Just say you saw it in THE INDUSTRIOUS HEN.

only for the hens but for the growing chicks as well. These shelters should also shield them from sudden downpours of rain as many chicks are drowned each year by sudden downpours of rain. Plenty of shade and pure fresh water are very necessary in the poultry yard and you should provide these now.

Eggs intended for hatching purposes should be kept in a cool place and turned every day or two. They should also be set as soon as possible after laid. In hot weather we cannot be too careful with hatching eggs and they should be gathered at least twice a day when practicable.

The North Carolina State Poultry Association has just been formed with Dr. B. F. Kaup, of West Raleigh, as secretary. Annual dues only fifty cents, and it is certainly up to every Carolina fancier to join in the effort to boost poultry in their State. All breeders under eighteen years of age admitted free. Regular bulletins will be issued by the organization.—Ex.

Statement of Ownership, Management, Circulation, etc., Required by the Act of Congress of August 24, 1912, of the INDUSTRIOUS HEN, for October, 1916.

State of Kentucky,
County of Jefferson.

Before me, a Notary Public, in and for the State and county aforesaid, personally appeared J. Gaylord Blair, who having been duly sworn according to law, deposes and says that he is the Editor of the Industrious Hen.

Publisher—Blair-Young Publishing Co., Louisville, Ky.; Editor—J. Gaylord Blair, Louisville, Ky.; Managing Editor—J. Gaylord Blair, Louisville, Ky.; Business Manager—Collins Young, Louisville, Ky.

That the owners are: J. Gaylord Blair, Louisville, Ky.; Collins Young, Louisville, Ky.; Jno. G. Blair, Carlisle, Ky.; J. W. Crudington, Knoxville, Tenn.; Jno. Guigliano, Louisville, Ky.

That the known bondholders, mortgagees and other security holders owning or holding one per cent or more of total amount of bonds, mortgages, or other securities, are: None.

Sworn to and subscribed before me this 3d day of April, 1917.

THOS. J. KNIGHT.

My commission expires March 8, 1920.

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Here's the coop you poultry keepers have prayed for. Saves your chicks from vermin and weather. The perfection.

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at BARGAIN PRICES now cheaper than wooden ones. AM. POULTRY SERVICE ASS'N, Box 105 Kansas City, Mo.

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40 days trial with absolute guarantee to hatch every hatchable egg. 1100 dealers. Low as \$7.50 anywhere east of the Rockies and North of Texas. Slightly higher in the west. Six sizes 60 to 600 eggs. Write for big catalog and dealer's name. Buckeye Incubator Co., 525 Euclid Ave. Springfield, O.

Poultry Profits Year around

Poultry is a business. Conduct it in a systematic, business-like way and it will give you a good profit every month of the year.

The LEE WAY is the systematic, profitable way. It enables you to keep the hens healthy all year 'round; get bigger hatches of stronger chicks; preserve spring eggs for winter's prices.

Method Proven Sure

HATCH

Egg-O-Hatch applied to eggs during incubation supplies oxygen to the growing chick, absorbs the carbon dioxide and rots the shell, so that at the time you have a strong chick and a tough, dry shell. Proves the hatch 10 to 40 per cent. Some users say even more. 1-cent package treats 600 eggs through one hatch.

April or May eggs coated with Egg-O-Latum keep 9 months to a year, so that they cannot be told from eggs laid within a week. No evaporation, no air-cell, no contracted odors, no deterioration; yolk remains whole and in center of egg; poaching, boiling, frying and beating as if under a week. 50-cent jar enough for 50 dozen eggs. Means 100 to 200 per cent profit.

Money Back If Not Satisfied



to do the same month of the year, to do so. It is the only way all the profit she Egg Maker, a meat keeps them lay- arly, even through ult. Like Egg- hatch and Egg- atum, it is a rect profit maker.

No hen should be expected to produce if constantly annoyed by lice or mites. Lee's Lice Killer, liquid, quickly kills the poultry and premises of these pests; also scaly leg.

It costs less than 2 cents per hen per month to follow the LEE WAY. Money back if not satisfied. Begin today. Get Lee's Poultry Library, five books, free for 5c in stamps. Explains the LEE WAY.

Hens, to do their best, must be kept healthy and contented. Germozone, tonic and bowel regulator, is a remedy for roup, colds, canker, bowel disorders, chicken pox, chick diarrhoea, etc; prevents contagion through drink; kills germs in the crop. Like Lee's Lice Killer, Germozone is an indirect profit maker and necessary part of a systematic plan for making poultry pay.

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DR. W. BARROW,

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Dark Cornish Eggs \$3.00 per 15

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Chattanooga, Tenn.



FARM AND GARDEN



Under this department we aim to give our readers the best possible of agriculture and we hope they will profit from this department each month. We will be glad to have our readers and subscribers give their experiences here each month.

Arrangement of Shrubbery.

PROBABLY the first plantings of shrubbery would be close to the foundation of the house. The angle at each side of the steps and the space in front of the veranda seem to demand the first work. In arranging this planting, the shrubs should not be in a straight line, but in a more or less irregular zigzag direction, with some extending out beyond the others, especially at exterior corners. It is preferable, in most cases, not to plant solidly, but to allow the foundation of the house to show at varying intervals.

Angles formed by the intersections of walks or of a walk and a drive are usually good places to plant shrubs. Sharp corners should be softened if

HOME GARDENS.

"Let me suggest also that everyone who creates or cultivates a garden helps and helps greatly to solve the problem of the feeding of the nations; and that every housewife who practices strict economy puts herself in the ranks of those who serve the nation. This is the time for America to correct her unpardonable fault of wastefulness and extravagance. Let every man and every woman assume the duty of careful, provident use and expenditure as a public duty, as a dictate of patriotism which no one can now expect ever to be excused or forgiven for ignoring.

"In the hope that this statement of the needs of the nation and of the world in this hour of supreme crisis may stimulate those to whom it comes and remind all who need reminder of the solemn duties of a time such as the world has never seen before. I beg that all editors and publishers everywhere will give as prominent publication and as wide circulation as possible to this appeal. I venture to suggest, also, to all advertising agencies that they would perhaps render a very substantial and timely service to the country if they would give it widespread repetition. And I hope that clergymen will not think the theme of it an unworthy or inappropriate subject of comment and homily from their pulpits.

"The supreme test of the nation has come. We must all speak, act and serve together.

"WOODROW WILSON."

possible. A turn in a drive can be made to look natural if a tree or clump of shrubbery is placed in front of the curve, making it appear that the change of direction was necessary.

Fences, outhouses and unsightly spots can be screened and improved in appearance by a judicious planting of shrubbery.—R. B. Cruickshank, Ohio State University.

Save the Young Pigs.

With the prevailing price of feed, the cost of carrying the brood sows through the winter has been higher than any previous year. This being the case, it is highly important that all the young pigs that are born be saved. The only returns received from the feed allowed the brood sows is in the form of young pigs born and raised. This also determines the initial cost of the young pigs. If it costs \$25 per

year to maintain a brood sow and she produces one litter of ten pigs, the initial cost of the pigs would be \$2.50 per head at weaning time. If she raises only six up to weaning time, the initial cost would be a little over \$4 per head. Thus it will be seen that it is important to have each sow produce two litters per year if conditions are favorable, and that it is good business to try to save all the young pigs that are born.

Save and Sell Your Cream.

Any farmer having a few cows and who has not a centrifugal cream separator is like a blacksmith who has no anvil. The first, best, most profitable and the largest money that a farmer can derive from agriculture is the cream check. No farmer who has been in the habit of receiving a monthly cream check ever gave it up. Milk producers shipping to market have gone out of business; people who have made butter on their farms have given it up; farmers who used to have to haul their whole milk to a creamery sometimes gave it up; but the farmer who hauls his cream to the creamery in "tin Lizzie" never gives it up. It is too much like a daily holiday and too much like a gold mine to be cast aside after it is once experienced. Do you get a cream check? If not, why not?

Corn Yields Increased by Lime.

Corn yields have regularly been increased for fourteen years from twelve to fifteen bushels per acre annually from lime costing about five dollars once in five years, at the experiment station farm at Wooster, Ohio. Other crops, particularly clover, has shown like increases from the use of lime, the average gain for all plots in the five-year rotation of corn, oats, wheat, clover and timothy being \$15.47 an acre, or a net profit of 229 per cent above the cost of the lime.

Lime is applied in the spring after the land is plowed for corn. From one to two tons of ground limestone is used per acre. The station specialists say that lime should never be mixed with manure or fertilizers or be plowed under. It may cause scabby potatoes if applied to this crop.

Feed Pigs by Themselves.

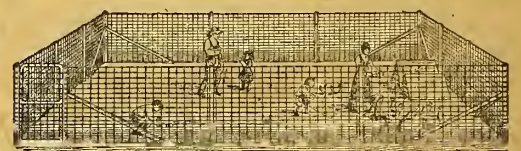
Little pigs will have a better chance to eat grain if means are provided for feeding them separately from the sow. A pen built close to the feeding quarters, with a hole large enough to permit the pigs to pass through, will encourage the eating of grain much sooner than otherwise. In this case the pigs may be more quickly weaned.

As a part of agricultural preparedness this country needs this year a big corn crop. It needs another three billion bushel yield such as it has had once, says the Farm Implement News. It needs a better quality of corn than it had in that one crop. Of course, the weather conditions will have much to do with determining the results this year, as they have in every other year, but weather is not the only factor to be considered. If good seed is sown and proper cultivation is given, much of the damage which may result from unfavorable weather will be



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offset. In a series of years we lose more corn as the result of poor seed and indifferent cultivation than we lose on account of unfavorable weather.

The Kardell "Four-in-One" Motor Plow.

Simplicity, compactness, durability and high efficiency are the four strong features of the Kardell "Four-in-One" Motor Plow, which is so named because besides being a plow it can readily be converted to three other uses—as a tractor, a motor truck or for the transmission of farm power.

Its chief advantage lies in the fact that it has been so designed as to eliminate excessive weight. This advantage has been gained without loss of shearing power; indeed, the unique arrangement of the three-plow unit has resulted in greater cutting efficiency.

Instead of being dragged behind the tractor, the Kardell plows are carried directly under the main frame, being held securely in a patented, flexible, adjustable frame. Any required amount of suction can be obtained by a simple adjustment of the front bail support. Counter-balanced springs which take care of the weight necessary to raise the plows out of the ground, make their operation remarkably easy.

The ready convertibility of the Kardell makes it the ideal machine for the average diversified farm of from 100 to 500 acres, where, by eliminating from five to ten horses, it will save more than \$1,370 during the first year. This estimate, however, takes into account only the item of horses. In addition to the saving there, the Kardell will actually earn money by doing more work than can be done in the same time by horse power.

The machine is also equipped with a 16-inch pulley, which gives belt power for all kinds of farm work.

The Kardell "Four-in-One" is manufactured at St. Louis, Mo., by the Kardell Tractor Co.

Anconas, S. C. White Leghorns White Orpingtons

Business changes compel us to dispose of all of our Mottled Anconas, White Orpingtons and White Leghorns, year old pullets and breeders, at one-third their real value. We have been years building up this flock of trap-nested layers. Can furnish egg records with each hen or pullet as well as age.

Can furnish cockerels with the following pedigrees: 246, 263, 288. Can furnish pens of 200 and over pedigreed females. All orders will be shipped subject to your approval.

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A Home Cure Given by One Who Had It

In the spring of 1893 I was attacked by Muscular and Inflammatory Rheumatism. I suffered as only those who have it know, for over three years. I tried remedy after remedy, and doctor after doctor, but such relief as I received was only temporary. Finally, I found a remedy that cured me completely, and it has never returned. I have given it to a number who were terribly afflicted and even bedridden with Rheumatism, and it effected a cure in every case.

I want every sufferer from any form of rheumatic trouble to try this marvelous healing power. Don't send a cent; simply mail your name and address and I will send it free to try. After you have used it and it has proven itself to be that long-looked-for means of curing your Rheumatism, you may send the price of it, one dollar, but, understand, I do not want your money unless you are perfectly satisfied to send it. Isn't that fair? Why suffer any longer when positive relief is thus offered you free? Don't delay. Write today.

Mark H. Jackson, No. 896C, Gurney Bldg.,
Syracuse, N. Y.

Mr. Jackson is responsible. Above statement true.—Pub.

H

Hate
each
B. R. HARM

N'S S. C. WHITE LEGHORNS

Reduced prices balance of season. 10 weeks old cockerels \$1.00 from 200 egg hens. Write me your wants. 2,000 birds on farm.

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Called "The Best Light Car Ever Built"

new Briscoe. You'll be wonderfully impressed with its simplicity, complete equipment, fine looks! It's the car for the family going—has the in-built stability that resists wear and tear, and saves money at every turn!

The Half-Million Dollar Motor is larger—gives 40% more power—with the wonderful economy for which it is famous. It gets 25 to 30 miles on a gallon of gasoline!

Every inch of this car shows value—the fine finish, the deep upholstery, the ideal simplicity and accessibility throughout. You can take the whole family in our sizeable touring car, and if you are six feet tall, you can stretch out full length in either front or back seats.

Success has made possible the price, \$685. More than 43 of our factories build the Briscoe 4-24. We eliminate parts and laborers' profits.

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Write for Book—

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BRISCOE \$685
The Car With The
Half Million Dollar Motor FULLY EQUIPPED



TURKEY & WATER FOWL

DEPARTMENT

This department is conducted by Mrs. J. C. Shofner, Mulberry, Tenn., and any questions that you wish to ask will be answered through this department if addressed to Mrs. Shofner. If personal reply is wanted enclose a stamped envelope.

Care and Food for the Young Turkey.

THIS subject has been written on by me several times in the life of the Industrious Hen; nevertheless, her readers have continually insisted upon my giving special attention, sometimes months before the time for turkeys to hatch. To write each a personal letter requires considerable time, and again, each season to remind those who already have read my plan, is good, as they may have forgotten some things that should be kept before them.

A very important reminder is healthy breeding stock. One cannot expect to get healthy, vigorous poults from weak, unhealthy parents. Another important thing, do not mate too many hens to one male. Ten hens in one pen is enough with a strong, vigorous tom. Now that we have our healthy stock mated properly, we may expect strong, healthy poults, if eggs are gathered daily and not allowed to get chilled or be too long in one position. Before incubation they should be turned every day or so, and kept in a moderately cool place to prevent the life germ from growing and dying. There are a number of people who do not know a fertile egg from an egg with a stale or dead germ. A fertile egg never mixes the yolk and white after three or four weeks' incubation, while a fertile egg that was stale before incubation, or has suffered from improper care during incubation, will get thin and watery with bad odor, many times forming gas, causing shell to burst and befool the nest and remaining eggs. In such cases the nest should be cleaned up and eggs washed clean and dried as quickly as possible, not allowing eggs to remain in the tepid water any longer than the work can be accomplished.

I usually set two or three turkey hens and several chicken hens at the same time. That a nice lot may come off at once. When they begin to hatch, I notice whether the hen seems to be nervous or not, and if she is quiet, I leave her alone; but if she appears to be restless I put a glove on my hand and gently slip the baby turks out into a basket lined with a warm cloth to prevent chilling, and keep them by the fire until hatch is over. Take all the turkeys from the

chicken hens and after dusting each little one with a good insect powder and giving mother turkey a thorough dusting likewise, I put the babies and mother in a board coop about 10x12 feet square and board about twelve or fifteen inches high, to prevent the little ones from wandering off from mother until they have learned her call or "baby talk." We should not put more than twenty-five with one hen, as that is as many as she can keep warm when hovered, and I really believe we could raise a larger per cent of the young hatched if she had fewer to care for.

After placing them in pen, and pen on a sunny, grassy slope, I place them their first meal, then forty-eight to fifty hours old, a hard-boiled egg, chopped with onion tops, lettuce leaves, dandelion leaves or pepper-grass, chopped fine for green food. Over this I sprinkle a little ground black pepper and ground charcoal on a bank of sand, or if sand is not convenient, I use small chick grit in pen near the food. Sometimes I beat up old broken crockery fine and put it before them. They must have something in their gizzard to grind the food and aid digestion; without grit of some kind they soon eat themselves so full that a fermentation sets up and we wonder what has gone wrong. One egg to twenty-five turks is a sufficiency for one ration, and I would say a single handful of green stuff. They should be fed three times a day as long as they are confined, which should be four or five days, if weather is pleasant, and if cold and rainy a dry house or portable coop should be provided, and coop moved a few feet every day away from where they roost, as a turkey's nature is cleanliness and pure air. If weather is fine, I let them begin their natural rambles for insects and tender grasses for a few hours each day, after dew is off, and drive them in before evening dews begin to fall. After they are out

on the range for a week or ten days I begin feeding more wholesome food of sweet milk with stale bread crumbs soaked in it, with my ground pepper and charcoal over it. Drain milk off that it may not be sloppy. They relish this for their supper very much.

I have not mentioned water. While confined in the coop they drink a great deal, and it should be in a shallow pan with small pebbles in it to prevent them from getting wet, as a thorough wetting and chill often causes death. At two weeks old I add cottage cheese, made of the waste milk. This is made by letting the milk clabber and then heat until the whey will separate from the cheese, then drain off whey and you will have a crumbly nice food which they relish very much. But if allowed they will eat too much and cause indigestion, and care should be taken in feeding it. More young turkeys and chicks are killed by kindness and overfeeding than the lack of it, and when digestion is overstocked, the liver gets torpid and the whole machine is out of order. After poults are a month old and are traveling miles each day and are full of insects they need a nice supper to induce their return home each evening, and see that they are safe in a nice large coop with gauze wire doors to let in plenty of fresh air and keep out all intruders.

The entire flock should be dusted for lice at least every ten days or two weeks and especially do I find it very necessary to dust in between wing quills and under wings, for the small white lice, that suck the life blood and vitality from the healthiest, finest flocks. Care to prevent disease, with cleanliness and proper feeding insures a flock by Thanksgiving that one will feel rewarded for his few months work.



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Do you want stock from the largest and finest in the South, from prize winners at Madison Square Garden, World's Fair, Nashville and many other great shows? Two flocks, unrelated, to select from. Also Barred Rocks, stock and eggs. Write at once to

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EGGS! EGGS!! EGGS!!!

BUFF ORPINGTONS, S. C. R. I. REDS, BARRED ROCKS

My exhibition birds are all in these pens and you stand the same chance for a show bird that I do. Send me your order for eggs and grow your own cockerels for next year. \$3.00 and \$1.50 per 15 eggs. If you don't have a good hatch, will replace infertile eggs at half price. Satisfaction guaranteed.

S. M. HARBISON,

No. 410 A Maple Avenue,

Danville, Kentucky

Just say you saw it in THE INDUSTRIOUS HEN.

SOUTHWESTERN NOTES AND COMMENTS

By MRS. J. F. VERMILLION, Editor.

OUR Southwestern notes will be short this month. I have been entertaining a house party and have not had time to even read and keep in touch with "poultry doings" in this section. One thing I do know, and that is that prices on commercial poultry are keeping pace with the advance in price of all feedstuff, and that is as it should be. At present prices and with every indication of a still greater advance, the farmer or back-lotter later can realize a nice little profit on a small investment by raising poultry.

The Fort Worth Poultry Show, held March 12-17, was a decided success, so Superintendent Burton writes us. The leading classes were well up and the association came out with some money in the treasury after all expenses and premiums were paid. They are now laying plans for their next show. The Orpington breeders of Texas met at this show and completed their organization. Following officers were elected: President, A. R. Gilmore, Waco; first vice-president, C. C. Miller, Fort Worth; second vice-president, F. B. Carver, Waco; secretary-treasurer, W. Willis Cox, Abilene. Place of holding their first annual meet and State show was left open for further consideration.

In looking over a Texas poultry journal, I noticed a suggestion that I consider very useful, so pass it along. It was simply spreading a long strip of roofing paper over Bermuda grass in hot dry weather, thereby rendering the tough dry blades of grass green and tender. I know from experience from leaving a board on grass that it would only require two or three days to bleach the grass. The paper can be removed from place to place, thus giving the flock good tender green grass all the time.

By the time this letter is published, all fancy poultry breeders will have reduced the prices on eggs for hatching and many will avail themselves of this opportunity to purchase good eggs at a moderate cost. I would like to make a plea to the purchaser of eggs at reduced price to give them and the chicks hatched from them the same diligent care and attention that would have been given earlier hatches. Late chicks are the most profitable, but they require more constant care than earlier chicks. First the setting hen must be watched closely for lice and mites, which will infest the nest if neglected, and no hen can stay on her job closely enough to bring off fine strong chicks if she is compelled to fight these pests. Then the heavy dew and red-bugs are to be reckoned

with after hatching. Just a little extra care is needed to successfully hatch and raise the chicks.

Organizing Poultrymen Better Poultry.

Are you a member of any organization for poultry keeping? If not, you have neglected an important means of your business success. Get up to you in the interest of poultry culture that you send a representative to a local, State or national organization. If in your opinion these organizations are not doing what you should to advance the interest of poultry, become a member and use your influence to improve the organization and make a power in the poultry world. All of these organizations welcome members and especially those possessed of good working birds as for their advancement.

Quality Barred Rocks.

Breeders who are interested in quality Barred Rocks should look up the advertisement of Chas. Koons, of Charlestown, Ind. We have handled his birds and can commend them to our readers. His winnings at the recent Ken-

W. C. WHITE and BROWN LEGHORNS, BARRED PLYMOUTH ROCKS
My pens are now mated and I can furnish you eggs from the above varieties at \$1.50 per 15 and \$10.00 per 100. Satisfaction guaranteed or money refunded. My matings are the best I have ever had and I am anxious to show you what quality I can give you at these reasonable prices.
W. C. WHITE POULTRY FARM, Emmett McGinnis, Prop., Bowling Green, Kentucky

Koons Quality Barred Rocks
Won at the following shows this season: Indianapolis, Louisville, Kentucky State Fair and Charleston. All in strong competition. My pens are now mated and I can furnish you eggs at \$3.00 and \$5.00 per setting. Eggs from flock \$10.00 per 100. Satisfaction guaranteed or money refunded.
CHAS. KOONS, CHARLESTOWN, INDIANA

English S. C. White Leghorns

Nothing but the very best. Bred-to-lay kind. Our breeding pens are headed by males from hens that have an egg record of from 264 to 286 their pullet year. If you want high-class utility birds from a flock that has plenty of range and from a farm that is free from disease and where modern methods are used, get your eggs from us. WE guarantee fertility. Get our prices.

KINDALE POULTRY & PRODUCE FARM,

MRS. DELLARD M. KINKADE, Prop.

UPTON, KENTUCKY

PILLING CAPON TOOLS

will enable you to caponize all your young cockerels and add greatly to your poultry profits. Simple, convenient and easy to use.

Double Price—Double Weight

On the market capons regularly bring 30c a lb.; roosters 15c a lb. They are cheaper and easier to raise, and need much less feed and care.

Complete set of reliable, practical Pilling "Easy-to-Use" Capon Tools, with full illustrated instructions, sent Parcel Post prepaid.

Caponizing is not difficult, anyone can do it. You can make money caponizing for others. Write today for our free Capon Book.

G. P. PILLING & SON CO.

23RD AND ARCH STREETS

PHILADELPHIA, PA.



tucky State Fair and the Louisville Armory show should convince anyone of their quality. In writing him please mention the Industrious Hen.

Morristown, Tenn., April 16, 1917.
The Industrious Hen,
Louisville, Ky.

Gentlemen: Results from this spring's ads. in the Industrious Hen have been very good. Have been swamped with day-old chick orders, more orders than I could fill for breeders, especially males, and have had a pretty fair trade on hatching eggs.

Thanking you for what you have accomplished for me along this line, I am,
Very truly yours,

JNO. R. CALHOUN.

Advertising pays in the Industrious Hen because we have the largest paid in advance subscription list of any poultry paper in the South.

PIGEONS PAY
Better Than Chickens
Young pigeons (squabs) bring 40 to 60c each when 3 to 4 weeks old. Big demand in city markets. Each pair of pigeons easily clear \$4 per year. Always penned up. Very little space and money needed to start. Free Book explains all.
MAJESTIC SQUAB CO., Dept. 57, ADOL, IOWA.

Kill Lice **NO HANDLING FOWLS.**
R. T. Barr, Box 42, Quincy, Ill., is mailing Free an illustrated circular showing how to kill lice in a few hours. If interested in poultry for profit, write today for This Big 12 page, Money-Saving Folder.

Crown Bone Cutter
EASIEST run, Fastest Cutter, Strong, Substantial build. Bone scrap means more eggs, higher percentage fertility. Own a "Crown" Cutter and have fresh bone for every feed. Dry Bone, Grain and Shell Mills. Hand and Power sizes. Free illus. catalogue. Est. 36 years.
WILSON BROS., Dept. 16 Easton, Pa.

Anconas and Silver Campines

H. A. SCOTT, Prop., Ancona Plant, Cumberland City, Tenn.

Won 20 Blue Ribbons, 4 Silver Cups, 4 Best Displays, 1916

EGGS AFTER MAY 15th, half price, all matings. Price reduced on Baby Chicks. Mating list free.

J. PENCE, Mgr., Campine Plant, Bowling Green, Ky.

Just say you saw it in THE INDUSTRIOUS HEN.

(Continued from page 185.)

Jardine's Barred Rocks, Ringlets, will produce winners in 1917. A \$50.00 male direct from Thompson heads pen No. 1. Cockerel mating eggs \$2.75 to \$5.00 per 15. Chicks \$6.00 to \$10.00 for 25. Catalogue ready. D. W. Jardine, Staunton, Va. 2-5t

Partridge Plymouth Rocks, Bird Bros. strain direct. The farmers' and the fanciers' fowl. Eggs and stock. A. D. Hill, Mt. Carmel, Ill. 2-5t

Eggs from Barred Rock hens with rec-ords certified to by director of Delaware Agricultural College, and mated to males from 255-egg hen. Three and five dollars per fifteen. Write me; will tell you what my birds do in the egg laying contests. Clarence Young, Sweetwater, Tenn. 2-5t

Purebred Barred Plymouth Rock eggs for hatching at \$1.50 for setting of 15. Mrs. N. D. Mason, R. F. D. No. 1, Henagar, Ala. 3-3t

Barred Rocks; have the laying habit. Baby chix \$15.00 per 100. Get your orders in early. Oakland Stock and Poultry Farm, Sumterville, Ala. 3-5t

My White Plymouth Rocks hold two world records made in laying contests. Send for pamphlet. C. E. Reed, Hollidaysburg, Penn. 3-3t

Barred Rock, Ringlets. Won four firsts on five entries. Fifteen eggs \$3.00; 30, \$5.00. Mrs. Mary E. Denton, Robards, Ky. 4-2t

Barred Rock, Ringlets. Won four firsts on five entries. Fifteen eggs \$3.00; 30, \$5.00. Mrs. Mary E. Denton, Robards, Ky. 4-2t

For Sale—Pure Barred Plymouth Rock eggs from best prize winning layers, at \$2 per 15 or \$5.50 per 45, or \$10 per 100. Address Mrs. J. C. Shofner, R. 1, Mulberry, Tenn. 4-2t

F. B. L. strain of White Rocks. Win-nings, Owensboro and Springfield, Ill., 1916, 1st cockerel, 1st hen, 3d cock, 1st, 3d and 4th pen. Three grand champions—cockerel, hen and pen. Stock and eggs for sale, also Barred Rocks. Write your wants. Mrs. J. W. Westacker, R. No. 2, Stanley, Ky. 2-5t

RHODE ISLAND REDS

Single Comb Reds. Eggs from prize winners \$2.00 per 15. Satisfaction guaranteed. Correspondence solicited. J. G. Lanham, Box 31, Fairmont, W. Va. 5-3t

Buschmann-Pierce Rhode Island Reds, Rose and Single Comb. Free mating list. Best quality, lowest prices, satisfaction guaranteed. Hope Poultry Breeders Association, Hope, Ind., R. F. D. No. 8. 3-3t

Single Comb Rhode Island Reds. The rich dark velvet red color that has the lustre to win in strong competition. Limited number of eggs from two of the best pens I ever mated. Satisfaction guaranteed. C. H. Briley, Antioch, Tenn. 2-5t

S. C. Rhode Island Reds. Can furnish eggs from very choice matings at \$1.50 for 15. W. J. Martin, Smiths Grove, Ky. 3-3t

Owen's Farm and Farrar Reds; Dixie strain White Wyandottes; Crystal White Orpingtons. Eggs and young stock for sale. W. H. Harrison, Cottondale, Fla. 3-5t

Single Comb Reds. Eggs for hatching. Prices reasonable. Satisfaction guaranteed. Correspondence solicited. J. G. Lanham, Box No. 31, Fairmont, W. Va. 3-5t

S. C. Reds. America's best blood. Tompkins and Crowther strains. Four pens mated for eggs at \$1.00 to \$3.00 per 15. Mating list free. Explains all. Harvey Baker, Johnstown, Ohio. 2-5t

Just back from Norfolk, Va., Show. Won 3d and 5th cockerel on two entries; 32 cockerels in class. If you want strong show quality S. C. Reds—eggs \$5.00, \$4.00, \$2.00 per 15. Incubator eggs 10 cents each. Honest dealing. Order from this ad. Tom D. Ayers, Morristown, Tenn., R. F. D. No. 3. 2-5t

Single Comb Rhode Island Red pullets and cockerels, dark red, of exceptionally high quality. Ten years line bred. Eggs for hatching from three high class pens. Address Dr. J. T. Herron & Son, 429 E. Main street, Jackson, Tenn. 2-5t

Single Comb Rhode Island Red eggs for sale from a well bred strain. One dollar per 15. E. F. Hixson, Box No. 1, Hixson, Tenn. 4-4t

RHODE ISLAND WHITES

The greatest Rhode Island White farm. Rose and Single Comb. Eggs \$1.25 per 15 and up. Also baby chicks. Catalogue free. Henry Eichelmann, Waterloo, Ill. 3-5t

PIGEONS

I offer guaranteed mated Homers in any quantity at \$1.00 per pair. Beautiful White Homers \$1.50 pair. Squab companies challenged to produce better stock at twice this price. Get my prices on Runt, Carneaux, Maltese Hens and save dollars. Squab Manual 25 cents. Chas. O. Gilbert, 222 Callowhill street, Philadelphia, Pa. 5-1t

Hevenor's Belgian Carneaux breed fast-est. Raise largest squabs. My book tells everything. Hevenor Pigeon Farms, Box 13, Tonawanda, N. Y. 4-1t

\$-3-\$- in Pigeons! Start raising squabs for market or breeding purposes. Make big profits with our Jumbo pigeons. We teach you. Large, free, illustrated instructive circulars. Providence Squab Co., Providence, R. I. 3-1t

I offer guaranteed mated Homers in any quantity at \$1.00 per pair. Beautiful White Homers \$1.50 pair. Squab companies challenged to produce better stock at twice this price. Get my prices on Runt, Carneaux, Maltese Hens and save dollars. Squab Manual 25 cents. Chas. O. Gilbert, 222 Callowhill street, Philadelphia, Pa. 4-1t

TURKEYS

Famous Eagle Farm Bourbon Red tur-key eggs, \$3.00 per twelve (12), postpaid. Eagle Farm, Sparta, Ky. 5-1t

Bronze winners, 36-pound cockerel \$15. Eggs. Black Langshans. Descriptive catalogue. Lorenz Co., Perryville, Mo. 5-1t

Bronze 55-pound strain, \$8.00 up. Eggs 50 cents each. Duroc-Jersey hogs. Both winners. Lorenz Company, Perryville, Mo. 3-3t

Bourbon turkeys; 20 fine young toms. Also hatching eggs in season. E. F. Trimble, Benton, Ky. 2-8t

Turkeys—All varieties, farm reared, large, healthy, vigorous birds. (Winners wherever shown. Buy your breeding toms now. U. R. Fishel, Box Q, Hope, Ind. 12-5t

For Sale—Mammoth Bronze turkey eggs from handsome large stock at \$10.00 per dozen. Address Mrs. R. L. Motlow, Mulberry, Tenn. 4-2t

Half wild turkeys, hardy as an oak. Few eggs to spare. J. H. Vaughan, State College, N. M. 3-3t

Famous Eagle Farm Bourbon Red tur-key eggs, \$3.00 per twelve (12), postpaid. Eagle Farm, Sparta, Ky. 4-2t

Mammoth Bronze turkey eggs for sale at \$10.00 per dozen. See display ad. in turkey department in this issue. Mrs. J. C. Shofner, R. 1, Mulberry, Tenn. 4-2t

WYANDOTTES

Send me your orders for Rose Comb White Wyandotte one-pound chicks. I. H. Finch, Clover, Va. 5-1t

Silver Laced Wyandotte eggs from two choice pens, \$1.50 per setting of 15. Mrs. Susie Leek, Route No. 2, Alledale, Ill. (?)

Silver Laced Wyandotte Cockerels—Fine birds. Satisfaction guaranteed. Eggs in season. The Wyandotte Poultry farm, C. W. Hunter, proprietor, R. No. 6, Box 111, Mt. Vernon, Ohio. 12-4t

"Duston" White Wyandottes. Louis-ville, first cock, first cockerel, second pullet and third pen. Penned eggs \$4.00 and \$5.00. Utility \$1.50 set; \$6.00, 100. Mrs. Tom H. Hayden, Owensboro, Ky., R. No. 6. 2-5t

"Duston" White Wyandottes. Louisville, first cock, first cockerel, second pullet and third pen. Penned eggs \$3.00 and \$5.00; utility, \$1.50 set; \$8.00, 100. Mrs. Tom H. Hayden, Owensboro, Ky., R. F. D. No. 6. 2-5t

Eggs from 50-pound tom sweepstakes winner, \$4.00 per 12. White and Silver Wyandottes, \$2.00 and \$3.00 per setting. Mrs. Lee Chapman, R. No. 10, Mayfield, Ky. 2-5t

White Wyandottes, Rose Comb. Eggs from large blocky birds. Best laying strain. Mated with show quality cockerels, \$1.00 per 15. \$2.50 per 50. \$5.00 per 100. Jno. J. Mast, Arthur, Ill. 3-5t

MISCELLANEOUS

Eggs from White Holland sweepstake winner, \$4.00 per 12. White Wyandottes, prize winners, \$3.00 per setting. Mrs. Lee Chapman, Mayfield, Ky., R. F. D. No. 10. 3-4t

All varieties poultry, turkeys, geese, ducks—best quality; lowest prices. Satisfaction guaranteed. Hope Poultry Breeders Association, Hope, Ind., F. D. No. 8. 3-3t

S. C. Black Minorca eggs, \$1.50 per 15. Bardstown Minorca Yards, H. B. Chambers, Minorca Specialist, Bardstown, Ky. 3-3t

Ninety varieties poultry, eggs, pigeons, hares, dogs, ferrets, guinea pigs, etc. Descriptive 60-page book 10 cents. J. A. Bergey, Telford, Penn. 3-3t

Poultrymen's Printing Prepaid—Note-heads, envelopes, cards, tags, labels, 100 either, 55c; 250, 95c; 500, \$1.35; 1,000, \$2.25. Postcards, catalogues, circulars, linen letterheads, everything. Finest cuts furnished. Stamp brings elegant samples. Model Printing Company, Manchester, Iowa. 12-6t

Tested and proven. Mitchell's improved King cotton is double early, prolific, productive. 100-pound sack seed, sealed, guaranteed, \$6.50, cash with order. Sugar Loaf Cotton Farm, Youngsville, N. C. 2-4t

Anconas and Reds. Single Combs, win-ners, layers. Fifteen eggs \$1.50, \$3.00 and \$5.00. Bourbon Red turkeys. Bargains in breeders. W. S. Nix, Calhoun, Ga. 2-5t

White Orpington and Rhode Island Red cockerels from fancy matings. Sixteen birds entered at Norfolk show, five won first, ten third. Eggs, fancy and utility. H. L. Turpin, Boynton, Va. 2-5t

Fine roosters—Silver Campines, Leg-horns, Houdans, Games, Wyandottes, Reds and others. Price low. Big illustrated circular free. See it. Jno. E. Heatwole, Harrisonburg, Va. 1-5t

Gape remedy that positively cures gapes, or money back, 25 cents. Agents wanted. Booklet and proposition free. W. Doran, Brandenburg, Ky. 1-6t

Eggs: White Leghorns, Partridge Wyandottes, Black Orpingtons, Indian Games, White Guineas, Runner Ducks. 200 prizes last season. Jno. Boyd, Alton, Va. 2-5t

Gentlemen: Mason sold 18 Spray Pumps and Auto Washers one Saturday. Profits \$2.00 each. Write Rusler Company, Johnstown, Ohio. 4-2t

Pharaohs lay twice daily. Increased egg production without enlarging the flock. Fifteen eggs \$10.00. Carl Bartlett, Overland, Mo. 4-3t

BUSINESS OPPORTUNITY.

Free for six months. My special offer to introduce my magazine, "Investing for Profit." It is worth \$10.00 a copy to anyone who has not acquired sufficient money to provide necessities and comforts for self and loved ones. It shows how to become richer quickly and honestly. "Investing for Profit" is the only progressive financial journal and has the largest circulation in America. It shows how \$100 grows to \$2,200. Write now and I'll send it six months free. H. L. Barber, 571-20 W. Jackson boulevard, Chicago, Ill. 3-12t

S. C. Rhode Island Reds Winners at Kentucky State Fair and Louisville Armory Show, 1917. Eggs \$1.50 per 15. Satisfaction guaranteed. Address,

W. A. RAMSEY, R. No. 11, Buechel, Ky.



SPIRALETS: Colored Leg Bands. Millions in Use. Blue, red, yellow, green, pink, amber, purple, black, white. 25, 25c; 50, 45c; 100, 70c; 250, \$1.50. Please state breed when ordering.

M. BAYERDORFFER, Box 59 Huguenot Park, N. Y.

EGGS!

EGGS!!

EGGS!!!

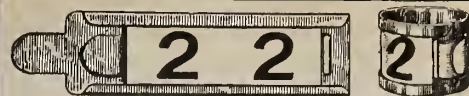
White and Barred Rocks, Golden Wyandottes, Buff Orpingtons, R. I. Reds, S. C. Brown and White Leghorns, Anconas and Silver Hens.

Write for prices, satisfaction guaranteed.

Unionville, Virginia

GARY'S WHITE WYANDOTTES

Won sweeping victory at Tampa, Florida, Feb., 1917. Headed by Stylish Model, Grandmother and King George 2nd. All products of one bird in all yards a winner. Range, containing all my Florida winners, (under 10 points) \$3 per setting. All great layers. Limited number of cockerels, \$10 to \$25. Shipped on approval. My Motto is Best and Pleased Customers. MRS. SAGE GARY, Mayfield, Kentucky



(Pat. Sept. 1, 1914.)

You Need This Band for Your Birds Just as Much as You Need Feed for them. You need them either to tell their age, or to keep your records right if you are trapnesting. The Bourn big-number bands are recommended for this as you do not have to catch the bird in order to read the number. Black numbers from 1 to 800 on white background. Numbers from 1 to 300 on red, yellow, cerise, green, pink, blue backgrounds. Sizes for Mediterraneans, Americans and Asiatics, also pigeons. Send for free sample and catalogue. We can furnish bands with the year "1915" and "1916" on them in order to tell the age of the bird. Send for sample and price list now.

BOURNE MANUFACTURING CO.,
253 Howard Street, Melrose, Mass.



For Sale S. C. BROWN LEGHORNS

Few COCKERELS and HENS left yet. Going at a reasonable price. Eggs from all pens are going at \$2.00 per setting from now on through this season. Circular free.

M. S. COPELAND,

Powell Station,

R. F. D. No. 1

Tennessee

Vermillion's S. C. Rhode Island Reds

Have demonstrated their quality beyond question by their record in the very largest shows in this and other states, both in our hands and for our customers. We are constantly receiving letters telling us of great winnings, great records or the thrift and vigor of young chicks hatched from eggs purchased from us this season. Our motto is: "A customer obtained is a customer retained." After April 15th our eggs will be reduced to following prices: \$4.00, \$2.00 and \$1.25 per fifteen and after May 1st we will have some splendid breeders for sale.

WRITE FOR CIRCULAR.

MRS. J. F. VERMILLION,

RUSK,

TEXAS

Single Comb White Leghorns

Eggs and Baby Chicks from heavy layers. Satisfaction guaranteed. Mating list free.

N. V. FOGG, Box 4250, Mt. Sterling, Ky.

Bourbon Red Turkeys

First prize winners at Richmond, Kentucky State Show, the past season. Eggs \$4.00 per dozen. Satisfaction guaranteed.

Mrs. R. C. Coomer, Speedwell Ky.

Photos for Illustrations

We make photographs of chickens, dogs, and all other animals.

BRANSON'S STUDIO

711½ South Gay Street KNOXVILLE, TENN

Opportunity Knocks Once At Every Man's Door

Our great disposal sale of surplus S. C. White Leghorns is your opportunity for securing foundation stock that will place you firmly on the road to success.

We offer pens, trios, and single birds in both old and young stock at less than half their real value. Remember, this stock is pure-bred, trapnested, pedigreed and bred for heavy egg production. This has been our hobby. All males are from hens with trapnest records, above 200 eggs each, of the famous Wyckoff strain.

Special bargains in pens properly mated by us for maximum results as follows:

Ten hens and one male bird	- - - - -	\$15.00
Four hens and one male bird	- - - - -	7.50
Trios, two females and one male	- - - - -	4.50
Single males, cocks or cockerels	- - - - -	2.00

EXPRESS PREPAID AND SATISFACTION GUARANTEED.

W. B. MOORE & SON,

Olga, Florida

Just say you saw it in THE INDUSTRIOUS HEN.

Chicks and Eggs at Reduced Prices

After May 1st we will sell eggs and day-old chicks at reduced prices. May hatched chicks will lay in October or November, the June hatch in December and will make just as good winter layers as earlier hatched chicks.

We can furnish chicks from 200 to 230 egg stock early in May: 25 chicks \$5.50, 50 for \$10.50, 100 for \$20.00, 1,000 for \$175.00. From 230 to 264 egg stock, 25 chicks \$8.50, 50 for \$16.00, 100 for \$30.00, 1,000 for \$250.00. We have all the orders for utility chicks that we can fill early in May, but can furnish any number the latter part of May or early in June at 25



for \$3.50, 50 for \$6.50, 100 for \$12.00, 1,000 for \$100.00. Safe arrival guaranteed. We can also fill a few more orders during April. See catalog for April prices. We can fill all egg orders promptly, and we guarantee fertility and safe arrival. 230 to 264 egg stock, 15 eggs April \$5.00, May \$3.50; 100 eggs April \$25.00, May \$15.00; 1,000 eggs April \$200.00, May \$125.00. 200 to 230 egg stock, 15 eggs April \$2.75, May \$2.00; 100 eggs April \$15.00, May \$10.00; 1,000 eggs April \$125.00, May \$90.00. Utility matings, 15 eggs April \$1.50, May \$1.25; 100 eggs April \$7.50, May \$6.00; 1,000 eggs April \$70.00, May \$50.00.

for \$3.50, 50 for \$6.50, 100 for \$12.00, 1,000 for \$100.00. Safe arrival guaranteed. We can also fill a few more orders during April. See catalog for April prices. We can fill all egg orders promptly, and we guarantee fertility and safe arrival. 230 to 264 egg stock, 15 eggs April \$5.00, May \$3.50; 100 eggs April \$25.00, May \$15.00; 1,000 eggs April \$200.00, May \$125.00. 200 to 230 egg stock, 15 eggs April \$2.75, May \$2.00; 100 eggs April \$15.00, May \$10.00; 1,000 eggs April \$125.00, May \$90.00. Utility matings, 15 eggs April \$1.50, May \$1.25; 100 eggs April \$7.50, May \$6.00; 1,000 eggs April \$70.00, May \$50.00.

EIGHT WEEK OLD PULLETS

One of the most satisfactory ways to start with Ferris Leghorns is to buy a pen of eight week old chicks. At this age the pullets weigh about 3/4 lb. and the cockerels about 1 lb. The pullets can easily be distinguished from the cockerels and the trouble and loss that sometimes occur in hatching and raising chicks is avoided, for at this age the birds are ready to go on the roosts, no longer require much close attention and are practically out of danger if given proper feed, a good coop and reasonably good care. We guarantee safe arrival anywhere. We can ship any time you want them after May 20th. From 230 to 264 egg stock, 10 pullets and 1 cockerel \$30.00, 100 pullets \$200.00. From 200 to 230 egg stock, 10 pullets and 1 cockerel \$20.00, 100 pullets \$150.00. From good stock without records, 10 pullets and cockerel \$13.00, 100 pullets \$100.00.

THIS FREE CATALOG tells all about Ferris White Leghorns and how to breed them for egg production; describes the eggs, chicks and eight week old stock priced above, and the liberal guarantee under which we sell them. Write for it—a post card will do—and let us show you why you should breed Ferris trap-nested laying stock.

GEORGE B. FERRIS, Ferris Leghorn Farm, 922 Union, **GRAND RAPIDS, MICH.**

QUALITY OR QUIT

UTILITY OR BUST

LAKE FOREST REDS

Nine years selling my strain of S. C. Reds without a dissatisfied customer, without a murmur. Nine years in the show room without a defeat, including Chattanooga, Memphis and Louisville. Not the best, but as good as the best. The Reds that make the other fellow nervous when they enter the show room. The Reds that lay in December as in May.

Eggs from Grand Champion Pen.....\$5.00
Eggs from Blue Ribbon Pen.....3.00
Eggs from Utility Pen.....2.00

A few cockerels for sale. Address

WADE FARRAR,

CHATTANOOGA,

TENNESSEE

ANDERSON'S MINORCAS win "THREE BLUES" at MADISON SQUARE

In a strong class of Single Comb Black Minorcas at Madison Square Garden, New York, they won first cock, first, second, third, fourth and fifth hens, first and fourth pullets, third and fourth cockerels, second and fourth pens. Special for best display. Eggs in season.

R. H. ANDERSON,

Lynchburg, Virginia

PLACE YOUR EGG ORDERS NOW WITH LOMBARDY HEIGHTS POULTRY FARM

Breeders, Exhibitors and Importers of Prize Winners of the Highest Type of

S. C. White Leghorns, S. C. Buff Leghorns, Blue Andalusians, White Plymouth Rocks, Buff Plymouth Rocks, Partridge Plymouth Rocks, Columbian Plymouth Rocks, Silver Penciled Plymouth Rocks, Barred Plymouth Rocks, Black Orpingtons, Blue Orpingtons, Silver Spangled Hamburgs, Dark Cornish, Lakenvelders, Light Brahmas, Wild Mallard Ducks, White Muscovy Ducks.

Our breeding pens are now mated and we can ship eggs out promptly. Our matings were never better and we guarantee a satisfactory hatch or will duplicate them at one-half price. Be sure to get your order in now for any of the above varieties. We also have some young and old stock to sell at reasonable prices. We will give you value received for every dollar spent with us. Write for large free catalogue describing our matings and giving prices. Address,

LOMBARDY HEIGHTS POULTRY FARM

JNO. O. REID, PROP.,

STANFORD, KENTUCKY